

more active in that little of the anchor **20** would protrude from the patient's body. Moreover, this would assist in maintaining sterility of the site, and may minimize the potential for inadvertent traumatic injury to the area.

[0048] In a second embodiment depicted in FIG. 8, a multicomponent design may be used to secure the anchor **20** in place. One example may utilize a base plate **53** for seating against the patient's body, and a lid or cap **54** secured to the cap to cover the base plate **53** as well as that portion of the anchor **20** protruding from the body. The base plate **53** may be configured similarly to the FIG. 7 retainer in that it would possess a slot **51** or central opening which would enable the base plate to secure the shaft **23**. The shaft **23** may be pulled under tension and wedged or otherwise secured into the base plate **53**, for example, by engaging the shaft **23** with a fixture **55** such as by passing the anchor **20** through the fixture **55** and wrapping the shaft **23** around the fixture to secure the shaft **23** in a manner reminiscent of tying a line to a cleat. This configuration may also be covered with a bandage as described above, or the cap **54** may be secured over the base plate **53**. The base plate **53** and cap **54** configuration may be made to have a low profile. Such an arrangement may range in thickness from about 5 mm to about 15 mm in dimension as measured from a position normal to the abdomen of the patient.

[0049] A third embodiment of the retainer **50**, may be similar to that depicted in U.S. patent application Ser. No. 11/139, 927 filed on May 27, 2005 entitled "Clamp for Flexible Tube" which is copending and commonly assigned, the disclosure of which is herein incorporated by reference in its entirety.

[0050] FIG. 9 depicts the anchor **20** in place within a body **100**. As may be seen the inflator **60** is connected to the anchor **20** at the connector **26**. Due to the small size of the anchor **20**, the inflator **60** may simply be a syringe capable of injecting into as well as removing a fluid from the anchor **20**. Although in many instances, the fluid is air, it should be understood that the ballooned region **24** may be inflated and deflated upon application or removal of other fluids, both gaseous and liquid, including but not limited to water and saline. In the FIG. 9 embodiment, it may be seen how the anchor **20** is used to secure the gastric wall **101** to the abdominal wall **102** by entering the patient's body **100** into the stomach or gastric lumen **103** through a stoma **104** created by the initial incision.

[0051] To better serve the purpose intended, additional desirable features may be incorporated into the ballooned region during the molding process which would prove useful in the application of the invention. For example, the ballooned region **24** may be preshaped so as to possess sufficiently small shoulder radii at regions **201** and **202** so that a face **203** may be created which is relatively flat in shape. This face would create a large resting or bearing surface to seat with the gastric wall **101**. The surface area of the face **203** working in conjunction with inflation of the ballooned region **24** would help minimize the likelihood of the anchor **20** from slipping out of the stoma **104**. Other desirable retention element shapes may be created as well, depending upon the application. For example, the overall geometry of the ballooned region **20** may be bullet-shaped, disc-shaped, spherical, cylindrical, frustoconical or any other suitable shape limited only by the purpose intended and the skill of those in the art at forming preshaped balloons.

[0052] As described above in more detail, once the anchor **20** is in place, the ballooned region **24** properly situated and inflated, in many embodiments, including that of FIG. 9, the proximal end **22** may simply be tied off. The reason that tying the anchor at the proximal end would be possible is due to the small size of the anchor and the low inflation pressures

needed to fully inflate the anchor once it is in place. It is envisioned that the diameter of the shaft **23** in many embodiments may be as small as from about 0.8 mm to about 1.5 mm, and the ballooned region **24** may be considered fully inflated at pressures as low as from about 50 mbar to about 200 mbar.

[0053] Other features that may be incorporated into any of the embodiments is to provide the anchor **20** with a lengthening feature. This may prove useful and assist in deployment of the anchor from the introducer. In such an embodiment, as the ballooned region **24** is inflated, inflation is first caused to extend the anchor longitudinally prior to any radial expansion of the ballooned region **24**. Such a feature would enable the inflation process itself to deploy the ballooned region from the sheath. Once the ballooned region **24** had fully deployed from the introducer **30** and the likelihood of damage to the anchor **20** were minimized, the introducer may be withdrawn from the body in any of the fashions described above and the ballooned region may continue to be inflated sufficiently so as to secure the anchor in place. This controlled expansion may be accomplished by molding the ballooned region in a manner that will specifically cause it to deploy from the introducer, or by preloading the anchor within the introducer so that it will do the same. One possible technique which may be used is to preload the introducer with the anchor, but to twist the anchor torsionally during the loading process and bunch up a portion of the anchor within the introducer. The twist would occlude the passage of the inflation fluid but would cause the anchor to move until such time as the twist were to clear the introducer. At that time, the anchor would untwist allowing the ballooned region to expand. Obviously folding the anchor without twisting may be made to accomplish the same effect.

[0054] Due to the controllable collapsibility of the anchor **20** it would be more amenable to atraumatic removal from the stoma than are prior art devices. This is because the present invention does not require the significant trans-abdominal exertion typically associated with those prior art devices containing a rigid shaft for carrying the balloon component. In the prior art devices, the mechanics of the balloon member are typically altered negatively over time, for example, balloon members associated with the prior art are known to stiffen and lose their ability to retract fully into the shaft completely. This results in the creation of traumatizing folds that may exacerbate healing of the stoma site upon removal or subsequent manipulation of the catheter. Proper selection of materials will prevent the present invention from exhibiting such features.

[0055] In many of these procedures, a plurality of anchors are used in close proximity to one another. For example, in one gastropexy procedure, often three or four anchors are used in conjunction with one another. Once the stomach wall and the abdominal wall are secured to one another, a gastrotomy tube is often placed into the stomach lumen by making an additional incision at a location interior to the perimeter of the plurality of gastropexy devices. In any event, an individual retainer may be made to have the capability of securing more than one anchor **20** therein. That is, a single retainer may be used to secure two or more of the devices described above, so long as the devices were sufficiently closely spaced to one another.

[0056] As used herein and in the claims, the term "comprising" is inclusive or open-ended and does not exclude additional unrecited elements, compositional components, or method steps.

[0057] While various patents have been incorporated herein by reference, to the extent there is any inconsistency